91W Lessons Learned

Department of Combat Medic Training

32nd Med BDE

Army Medical Department

Center and School

Transition and Pre-deployment Training

- **Current Transition**
  - CPR (4-8 hours)
  - EMT (110 hours/ ~10 h pt contact required)
  - PHTLS or BTLS (16 hours)
  - Trauma AIMS (68 hours)

  208-212 hours

  Lacks combat lanes training

- Alternate pathways
  - Remain the same
  - E-7(P) by 2007/2009
  - LPN or EMT-P recognized

- **Proposed Transition and Pre-deployment**
  - CPR (4-8 hours)
  - EMT (80 hour or 110 hour)
    - approved by NREMT for medics
  - New transition (40 hours)
    - Includes PHTLS and TC^3
    - Skills training
    - Includes international humanitarian law / Geneva Conventions
  - Pre-deployment adds 20-30 hours of combat lanes training

  144-148 transition

  164-178 transition and pre-deployment

AAR’s

- Patients are being held in non-doctrinal locations (BAS)
  - Increase 91W training
- Evacuation
  - Need to change expectations for care
    - ie convenience or medico-legal
    - Security
    - Better prepared medics

AAR’s

- Develop geographically convenient training centers to conduct training.
- Develop a system to review the training at each center and coordinate minimum standards of trauma treatment
- 91W Sustainment
  - Maximize training in garrison

Core Skill Requirements

Core Skill Requirements	CLS	91W	LPN	RN	CRNA	PA/MD
Airway: demonstrate cervical spine immobilization	★	★	★	★	★	★
Airway: clear an upper airway obstruction	★	★	★	★	★	★
Airway: insert an oral/nasopharyngeal airway	★	★	★	★	★	★
Airway: insert Combitube		★	★	★	★	★
Airway: insert laryngeal mask airway (LMA)		★	★	★	★	★
Airway: perform endotracheal intubation					★	★
Airway: perform rapid sequence induction					★	★
Airway: perform a needle cricothyroidotomy		★			★	★
Airway: perform a surgical cricothyroidotomy		★			★	★
Airway: perform endotracheal suctioning		★	★	★	★	★
Breathing: perform needle chest decompression		★	★	★	★	★
Breathing: place chest tube for hemo/pneumothorax		★	★	★	★	★
Breathing: ventilate a patient with bag-valve-mask	★	★	★	★	★	★
Breathing: ventilate patient using Impact 754 ventilator	★	★	★	★	★	★
Circulation: control bleeding using pressure dressings	★	★	★	★	★	★
Circulation: apply tourniquet to control bleeding	★	★	★	★	★	★
Circulation: recognize signs/symptoms of shock	★	★	★	★	★	★
Circulation: obtain vital signs & recognize						

Core Skill Requirements

Core Skill Requirements	CLS	91W	LPN	RN	CRNA	PA/MD
Circulation: place peripheral intravenous line	★	★	★	★	★	★
Circulation: place central line					★	★
Circulation: perform venous cutdown					★	★
Circulation: perform intraosseous line placement		★	★	★	★	★
Circulation: initiate intravenous crystalloid infusion		★	★	★	★	★
Circulation: administer blood/blood products		★	★	★	★	★
Circulation: administer volume with Level 1 infuser			★	★	★	★
Circulation: perform pericardiocentesis					★	★
Circulation: apply a dressing to an open chest wound	★	★	★	★	★	★
Circulation: apply a dressing to an open abd wound	★	★	★	★	★	★
Circulation: apply a dressing to an open head wound	★	★	★	★	★	★
Disability: recognize signs/symptoms of increased intracranial pressure		★	★	★	★	★
Disability: splint a suspected a fracture	★	★	★	★	★	★
Exposure: prevent hypothermia	★	★	★	★	★	★
Exposure: recognize and treat hypothermia	★	★	★	★	★	★

Core Skill Requirements

Core Skill Requirements	CLS	91W	LPN	RN	CRNA	PA/MD
Exposure: protect yourself from heat, cold, biting insects, and diarrhea and dysentery	★	★	★	★	★	★
Adjuncts: place and monitor pulse oximeter		★	★	★	★	★
Adjuncts: monitor ECG rhythm strip		★	★	★	★	★
Adjuncts: perform hemodynamic monitoring			★	★	★	★
Adjuncts: perform diagnostic peritoneal aspiration/lavage						★
Adjuncts: insert naso/orogastric tube		★	★	★	★	★
Adjuncts: perform arterial line placement					★	★
Adjuncts: manage arterial line			★	★	★	
Adjuncts: insert urinary catheter		★	★	★	★	★
Management: apply traction splint for extremity fracture		★	★	★	★	★
Management: apply pelvic sheet/binder for pelvic fracture		★	★	★	★	★
Management: ligate/clamp bleeding in traumatic amputation						★
Management: provide initial treatment for burns	★	★	★	★	★	★
Management: perform regional anesthetic techniques					★ ★	
Management: perform anesthesia with Narkomed M						

Core Skill Requirements

Core Skill Requirements	CLS	91W	LPN	RN	CRNA	PA/MD
Management: administer first aid to a chemical agent casualty	★	★	★	★	★	★
Management: perform anesthesia with Magellan 2200					★	
Management: perform anesthesia with Ohmeda UPAC (drawover)		★	★	★	★	★
Management: manage combat stress reaction (battle fatigue)	★	★	★	★	★	★
Disposition: request medical evacuation	★	★	★	★	★	★
Disposition: perform initial triage of casualties		★	★	★	★	★
ACLS: recognize cardiac arrest and dysrhythmias		★	★	★	★	★
ACLS: use defibrillator to treat cardiac dysrhythmias		★	★	★	★	★
ACLS: treat dysrhythmias pharmacologically		★	★	★	★	★
ACLS: manage hemodynamic alterations pharmacologically						

Medics providing care to detainees

- Should receive mandatory briefings during deployment
  - Cultural norms for male/female roles
  - Geneva Convention requirements
  - "Stockholm"-like syndrome
  - Operational security
  - Requirements for admission and transfer of detainees
  - Orientation on the "dos/don'ts" associated with the care and treatment of detainees to avoid compromising the security of self and others

Detainee and Civilian Care

- Appropriate interactions
  - Care of Civilians
  - Pain management
  - Growth and development, and
  - Religious considerations

Treatment AAR's

- Sternal Intraosseous access
  - used them in a number of patients with circumferential burns and others in whom we were unable to get peripheral access.
  - BOTTOM LINE, they work well
- Vehicle Extrication
  - When a vehicle hits an IED or an RPG there is a lot of damage to the vehicle; use litter straps to pull twisted metal from pe
  - It is not the best
    but it works when people
    are shooting and you need
    to get out in a hurry

Combat LifeSavers

- Combat Lifesavers
  - A big part of the forces medical assets
  - Usually are the first responders and have saved many lives
  - Make this training a priority for your Battalion. You should have at least 2 combat lifesavers per vehicle and one CLS bag per vehicle

Improved First Aid Kit

Israeli Pressure Dressing (IPD) aka: Trauma Dressing $4.20

4” Kerlix $ .98

Combat Application Tourniquet (CAT) $27.28

Nasopharyngeal Airway (NPA) $ 1.66

14g Needle $ 2.50

2” Tape $1 . 38

MOLLE Type Pouch $ 15.00 (max)

Exam Gloves (4) $ .32

Weight: 1.08 lbs **Cube: 128 ci**

$ 53.32

Vehicle Life Saving Kit (VLSK)

- VLSK can be dismounted and easily carried via shoulder straps to point of wounding
- Increases Vehicle Crew capabilities to provide Self-Aid/Buddy-Aid (SABA) for multiple casualties
- Provides the Crew SABA interventions for the three leading causes of death on the battlefield
- Provides the Crew the ability to evacuate a non-ambulatory casualty
- Increases Crew Survivability during dispersed operations ie. IED/RPG attack on convoy

- Requirement captured as a Future Combat System (FCS) Attribute
- Several Organizations have created their own versions: “out of pocket”
- AoA on evacuation device places the collapsible litter as the 80% solution
- Preparing technical data for submission to MRMC for rapid development

- Cost: $800.00 (estimate)
- BOIP: One per Combat/Tactical Vehicle
- Recommendation: Field Army Wide

FOUO-Predecisional Draft

Airway

- Positioning
- Naso-pharyngeal airway
- Circothyrotomy

Bleeding

- Order a ton of CAT tourniquets
  - Tourniquets have saved many lives
  - Train your CLS and medics on how to use them and not to be afraid of applying it
  - 85% of all battlefield deaths in past conflicts have been from extremity wound exsanguinations

Hemorrhage Control in COMBAT

The recommended means to control bleeding in a <u>tactical environment while under fire</u> is a rapidly applied tourniquet

COMBAT APPLICATION TOURNIQUET ®

Better devices to control bleeding will result in more lives saved.

Chitosan Hemostatic Dressing

- Peel open over-pouch by pulling the unsealed edges apart

Chitosan Hemostatic Dressing

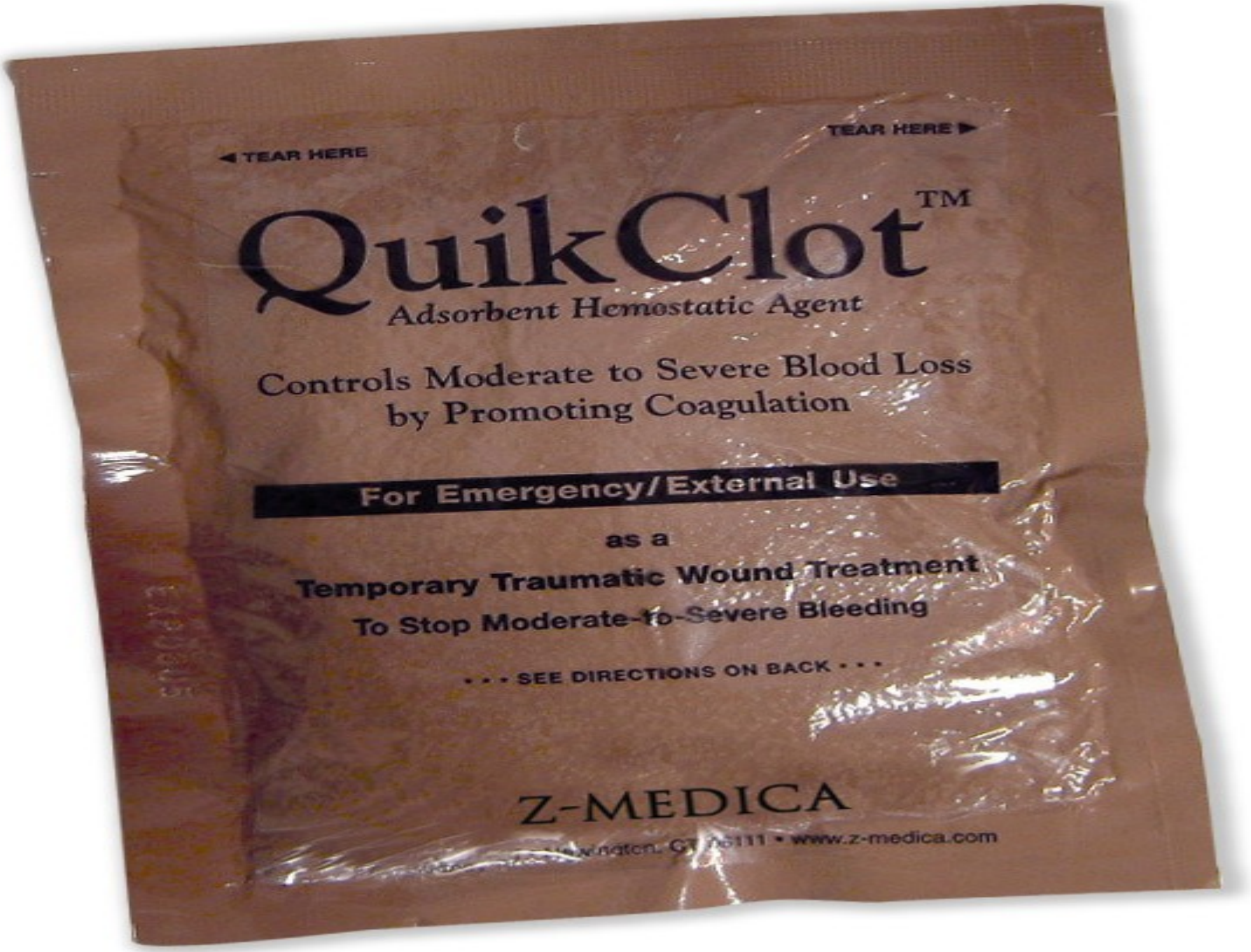
- Hold dressing by the non-absorbable polyester backing and discard the foil over-pouch. Hands must be dry to prevent dressing from sticking to hands.

Chitosan Hemostatic Dressing

Chitosan Hemostatic Dressing

- Hold dressing by the non-absorbable polyester backing and discard the foil over-pouch. Hands must be dry to prevent dressing from sticking to hands.

Chitosan Hemostatic Dressing


◄ TEAR HERE
TEAR HERE ►
QuikClot™
Adsorbent Hemostatic Agent
Controls Moderate to Severe Blood Loss
by Promoting Coagulation
For Emergency/External Use
as a
Temporary Traumatic Wound Treatment
To Stop Moderate-to-Severe Bleeding
• • • SEE DIRECTIONS ON BACK • • •
Z-MEDICA
• www.z-medica.com

DNBI

- ∀• All of the diarrhea cases encountered were not infectious.
  - - Prevention; hand washing will limit the
  - diarrhea cases
- Order enough hand sanitizer for each SM
  - Along with good hygiene this will decrease the number of GI complaints

DNBI

- Do a good health screening on your soldiers and find out what problems they
- Also, screen you soldiers for temp / permanent profiles and start FFD evaluations early
  - Prevents headaches later
- Bring URI meds with you on the plane
  - You will see increases in URI's and bronchitis in Kuwait
  - Recommend that a 45-day supply as are not able to get to sets/kits and outfits due to being in the conex.

Sick Call

- The aid station is a 24 hour operation
- More training for 91W in sick-call medicine
  - Sick call is basically the same as in garrison
  - Common problems
    - LBP, musculoskeletal, knee, ankle and shoulder
    - Initial trend of LBP, common wearing the IBA all day
- Sick call twice a day for 1 hour
  - see patients all day because of the high OPTEMPO

Miscellaneous

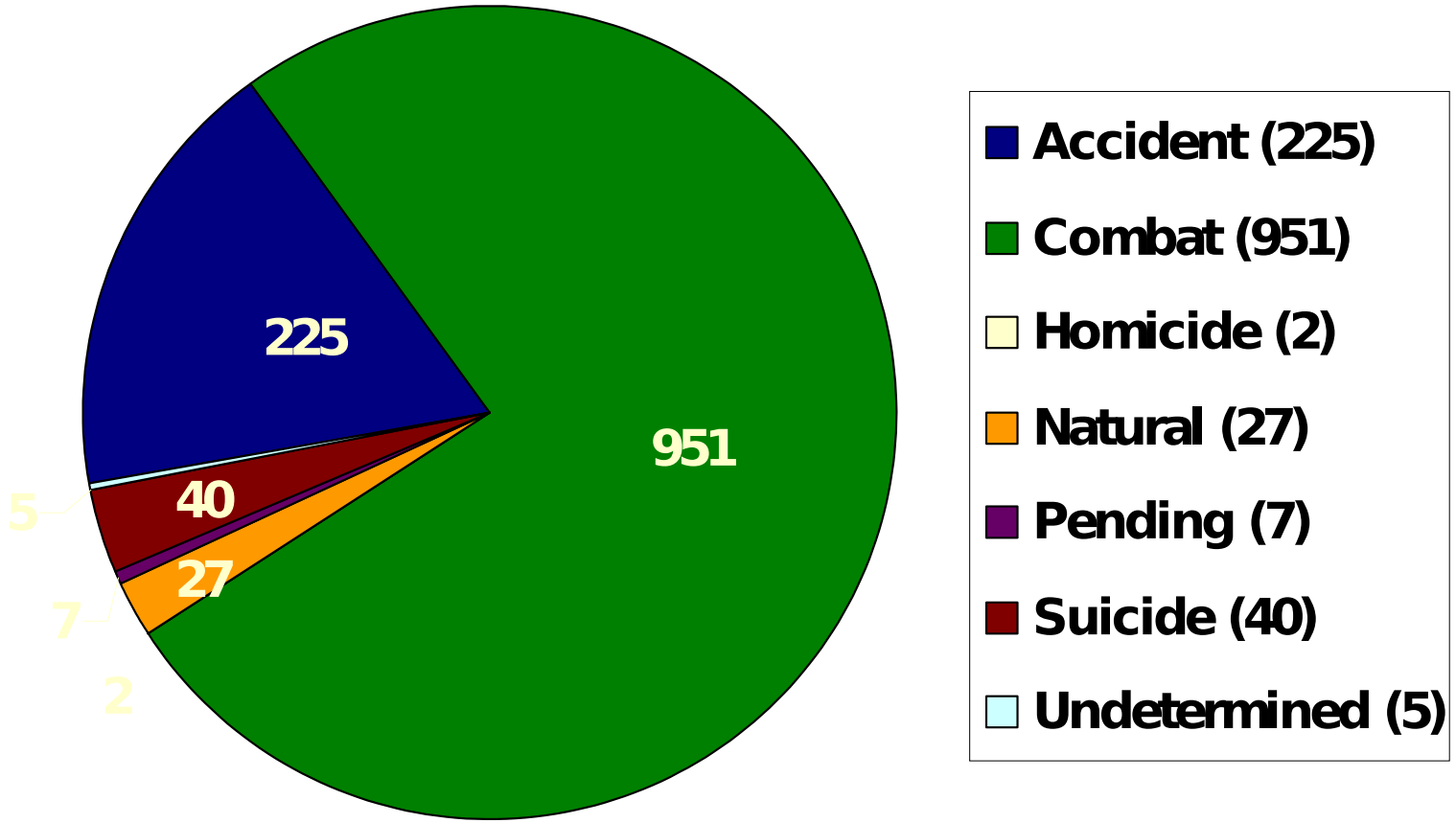
- Line medics trained in the use of narcotics but were not issued or authorized to carry
- Standard army dressings do not stay tight when moving the patients out of the line of fire
  - Use Trauma Dressing
- Increasing Scope of Practice
- Increased training for Flight Medics
  - Evac taining
- Better pathway for Medics to advance
- Pharmacology and Formulary for Medics
- More hands on training
- Fix MPT

Combat Stress Control

- Get to know the combat stress team
  - Keep them informed on all serious incidents
  - They gladly come and conduct de briefs for company size elements or smaller
  - Usually stay for about 2-3 days.

OIF Deaths By Manner

3/19/2003 – 11/30/2004



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Types of injuries at the BAS

- Typical BAS:
  - To date we have seen 180 major trauma patients in the aid station over the past year; we were very busy; only 6 medics in the BAS
  - No PROFIS MD since we are a FA BN that was tasked organized as a motorized infantry TF
  - That is why trained medics are critical
  - 2 true MASCALs
    - 1 June 04: 30 injured / 11 dead
    - 5 Dec 04: 20 injured / 3 dead
    - When injured soldiers arrive at the aid station it is usually 2-4 soldiers at a time

Types of injuries at the BAS

- The vast majority have UE an LE wounds from blast and shrapnel, partial amputations, extensive soft tissue damage with open tib/fib Fx
- 1/3 of trauma patients involve the head and neck
  - Include decapitations, penetrating head injuries, open skull Fx with exposed brain matter, severe maxillofacial injuries with airway compromise. Also 3rd degree burns to head and neck.
- GSW
  - Head
  - Abdomen with eviscerated organs
  - Arms and feet.

Types of injuries at the BAS

- MVA rollovers
  - all the injuries that go with that
- Just about every injury that you can think of we have treated it at least once, to include electrocution.
- This is why teach your medics TC3 because they will use it
- Procedures at the aid station:
  - Chest tubes, surgical cricothyroidotomy, needle decompression, central lines and RSI intubations

IV Therapy

- There have been allot of well placed IV's on DEAD people!
  - There is "no" need to start IV's out in sector
    - The medic or CLS needs to STOP the bleeding
    - Worry about the IV when the patient comes to BAS
    - To hard to do everything when someone is shooting an RPG at you.
    - What to teach the medics and command is:
      - Get the injured soldier back fast as you can
      - "time is not your friend, shock however is"
        - » Chad Cole 1LT, TF 1-7 Physician Assistant

Notes from Chad Cole 1LT, TF 1-7 PA

- Practice low volume resuscitation except when not prudent ie, b/p less than 80 systolic
- When a soldier get injured in sector, the Cdr on ground has decisions to make,
  - #1being do I stay in contact with the enemy and destroy him so he doesn't shoot at me tomorrow or do I break contact and get this injured soldier back to the aid station? This is a hard decision.
  - It is at my Task force that we stay in contact and then get the soldier back to me as fast as you can my medics treat in route, we do not stay in the hot zone for any period of time

Notes from Chad Cole 1LT, TF 1-7 PA

- Dead medics treat no one.
- That should be changed at the school house. I used to teach there and it was common to tell soldiers to stabilize immediate injures there on ground first then transport.
- I don’t believe that anymore. Fast evacuation is the key, don’t get me wrong placing a tourniquet on a bleeder right there is important and can be done, but please stress to soldiers that starting IV’s are NOT needed right then and there.

Notes from Chad Cole 1LT, TF 1-7 PA

- Positioning of the injured.
  - Trained CLS and medics on the importance of positioning the injured soldier.
  - Soldiers with face and neck injures have arrived at the BAS on their backs, so blood is running down their trachea and in the lungs. So, A,B,C and postioning!!